

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

application
of _____

Inventor(s)

for _____

Title of invention

OR

In re application of: Asada et al.

Application No.: 10/734,732

Group No.: N/A

Filed: December 12, 2003

Examiner: N/A

For: Vibratory Venous and Arterial Oximetry Sensor

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
WITHIN THREE MONTHS OF FILING OR
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. SECTION 1.97(b))

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. SECTION 1.8(a))

I hereby certify that, on the date shown below, this correspondence is being:

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Date: February 12, 2004

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Office.

Signature

Samuel J. Petuchowski

(type or print name of person certifying)

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant: (1) within three months of the filing date of a national application; (2) within three months of the date of entry of the national stage as set forth in section 1.491 in an international application; or (3) before the mailing date of a first Office action on the merits, whichever event occurs last." 37 C.F.R. section 1.97(b).

NOTE: The "filing date of a national application" under 37 C.F.R. section 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark office, the filing is defined in 37 C.F.R. section 1.53(b) as "the date on which: (1) A specification containing a description pursuant to section 1.71 and at least one claim pursuant to section 1.75; and (2) any drawing required by section 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by section 1.41." 37 C.F.R. section 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. section 371(c) within the periods set forth in section 1.494 or section 1.495. 35 U.S.C. section 371(c) requires the filing of the following: (1) the basic national fee; (2) a copy of the international application, unless already sent by the International Bureau, and optionally an English translation if filed in another language; and, also optionally (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. The optional items must be submitted later, with surcharges. 37 C.F.R. section 1.97(b)(2).

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. section 1.97(b).

NOTE: "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing."

NOTE: "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 C.F.R. 1.8, or Express Mail certificate under 37 C.F.R. 1.10. An office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

NOTE: "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three-months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

NOTE: "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirement (37 C.F.R. section 1.142) or just a requirement for additional fees to have a claim considered (37 C.F.R. section 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

WARNING: "A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 C.F.R. section 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63).


SIGNATURE OF PRACTITIONER

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01118/00191 295087.1

Practitioner's Docket No. 1118/191

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent application
of _____

Inventor(s) _____

for _____

Title of invention _____

the specification of which is being transmitted herewith

OR

In re application of: Asada et al.

Application No.: 10/734,732

Group No.: N/A

Filed: December 12, 2003

Examiner: N/A

For: Vibratory Venous and Arterial Oximetry Sensor

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant:

(Information Disclosure Statement--page 1 of 10)

CERTIFICATION UNDER 37 C.F.R. SECTIONS 1.8(a) and 1.10*

(When using Express Mail, the Express Mail label number is mandatory;

Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

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37 C.F.R. SECTION 1.8(a)

37 C.F.R. SECTION 1.10*

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Signature

Samuel J. Petuchowski

(type or print name of person certifying)

Date: February 12, 2004

***WARNING:** Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. section 1.10(b).
"Since the filing of correspondence under section 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable C.F.R.e, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

- (1) Within three months of the filing date of a national application;
- (2) Within three months of the date of entry of the national stage as set forth in section 1.491 in an international application; or
- (3) Before the mailing date of a first Office action on the merits, whichever event occurs last." 37 C.F.R. section 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. section 1.56(a).

"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) each inventor named in the application;
- (2) each attorney or agent who prepares or prosecutes the application; and
- (3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. section 1.56(c).

NOTE: The "duty as described in section 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by sections 1.97(b) - (d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O.G. 13-25 at 17.

WARNING: "No information disclosure statement may be filed in a provisional application." 37 C.F.R. section 1.51(b).

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: disC.F.R.d unused sections and number pages consecutively)

1. ☒ Preliminary Statements
2. ☒ Forms PTO/SB/08A and 08B (substitute for Form PTO-1449)
3. ☐ Statement as to Information Not Found in Patents or Publications
4. ☐ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. ☐ Cumulative Patents or Publications
6. ☒ Copies of Listed Information Items Accompanying This Statement
7. ☐ Concise Explanation of Non-English Language Listed Information Items
 - 7A. ☐ JEPO Search Report
 - 7B. ☐ English Language Version of EPO Search Report
8. ☐ Translation(s) of Non-English Language Documents
9. ☐ Concise Explanation of English Language Listed Information Items (Optional)
10. ☒ Identification of Person(s) Making This Information Disclosure Statement

(complete the following, if appropriate)

Sections _____, respectively, have been continued on ADDED PAGE(S).

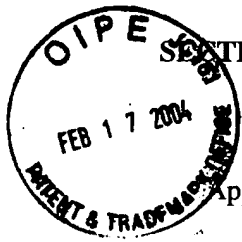
NOTE : "Once the minimum requirements are met, the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

Section 1. Preliminary statements

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. section 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.



SECTION 2. FORMS PTO/SB/08A and 08B (formerly Form PTO-1449)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Asada et al. Attorney Docket: 1118/191
Serial No: 10/734,732 Art Group Unit: N/A
Date Filed: December 12, 2003 Examiner Name: N/A
Invention: Vibratory Venous and Arterial Oximetry Sensor

**LIST OF PATENTS AND PUBLICATIONS FOR
APPLICANT'S INFORMATION DISCLOSURE STATEMENT**

United States Patent Documents

Examiner Initials	Reference Number	Document Number	Issue Date	Inventor	Class/Sub
	AA	3,835,839	Sept. 17, 1974	Brown	128/2.05F
	AB	3,878,502	Apr. 15, 1975	Rochelle	340/5
	AC	3,972,038	July 27, 1976	Fletcher et al.	340/189M
	AD	3,972,320	Aug. 3, 1976	Kalman	128/2.1A
	AE	4,063,410	Dec. 20, 1977	Welling	58/38R
	AF	4,396,906	Aug. 2, 1983	Weaver	340/347D
	AG	4,535,324	Aug. 13, 1985	Levental	340/574
	AH	4,799,062	Jan. 17, 1989	Sanderford, Jr. et al.	342/450
	AI	4,825,872	May 2, 1989	Tan et al.	128/633
	AJ	4,827,943	May 9, 1989	Bornn et al.	128/668
	AK	4,924,450	May 8, 1990	Brashear et al.	367/118
	AL	5,152,296	Oct. 6, 1992	Simons	128/670
	AM	5,285,784	Feb. 15, 1994	Seeker	128/633
	AN	5,297,548	Mar. 29, 1994	Pologe	128/633
	AO	5,309,916	May 10, 1994	Hatschek	128/672

AP	5,511,546	Apr. 30, 1996	Hon	128/633
AQ	5,638,818	June 17, 1997	Diab et al.	128/653.1
AR	5,661,460	Aug. 26, 1997	Sallen et al.	340/573
AS	5,694,939	Dec. 9, 1997	Cowings	128/671
AT	5,738,102	Apr. 14, 1998	Lemelson	128/671
AU	5,771,001	June 23, 1998	Cobb	340/573
AV	5,964,701	Oct. 12, 1999	Asada et al.	600/300
AW	4,539,997	Sep. 10, 1985	Wesseling et al.	128/167
AX	5,735,800	Apr. 7, 1998	Yasukawa et al.	600/503
AY	5,964,701	Oct. 12, 1999	Asada et al.	600/300
AZ	6,263,222	Jul. 17, 2001	Diab et al.	600/310
BA	6,388,247	May 14, 2002	Asada et al.	250/221

International Patents

Examiner Initials	Reference Number	Document Number	Issue Date	Inventor	s/Sub
	BB	DE 3609 913	Oct. 1, 1987	Ernst	
	BC	EP 0 467 853	July 15, 1991	Hatschek	
	BD	EP 0706 776	April 17, 1996	Kondo et al.	
	BE	EP 0 724 860	Aug. 7, 1996	Hartwig	
	BF	FR 2 655 834	June 21, 1991	Collot	
	BG	WO 93/16636	Sept. 2, 1993	Myllymaki	
	BH	DE 31 50925	June 30, 1983	Honeywell B.V.	
	BJ	WO 98/17172	Apr. 30, 1998	Asada et al.	
	BK	WO 00/64338	Nov. 2, 2000	Rhee et al.	
	BL	WO 01/67946	Sept. 20, 2001	Fine et al.	

Other Documents

Examiner Initials	Reference Number	Author	Title of Article, Title of Journal, Volume Number, Page Numbers, Date
	BM	Asada et al.	The Ring Sensor: a New Ambulatory Wearable Sensor for Twenty-Four Hour Patient Monitoring, Proceeding of the 20 th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Hong Kong, Oct.29-Nov.1, 1998
	BN	Asada et al.	Modeling of Finger Photoplethysmography for Wearable Sensors

- | | | |
|----|------------------|--|
| BO | Asada et al. | Artifact-Resistant Power-Efficient Design of Finger-Ring Plethysmographic Sensors, IEEE Transactions on Biomedical Engineering, Vol. 48, No.7, July 2001 |
| BP | Kamiya et al. | Long-term ambulatory monitoring of indirect arterial blood pressure using a volume-oscillometric method, Med. & Biol. Eng. & Comput. 1985, 23, 459-465 |
| BQ | Yamakoshi et al. | Current developments in non-invasive measurement of arterial blood pressure, J. Biomed.Eng., vol.10, 129-137, 1988. |
| BR | Beekvelt et al. | <i>Performance of near-infrared spectroscopy in measuring local O₂ consumption and blood flow in skeletal muscle, J. Appl. Physiol.</i> Vol. 90; pages 511-519. 2001. |
| BS | J.R. Womersley | <i>Oscillatory Flow in Arteries: the Constrained Elastic Tube as a Model of Arterial Flow and Pulse Transmission, Phys. Med. Biol. 2,</i> pages178-187, 1957. |

Section 6. Copies of Listed Information Items Accompanying This Statement

NOTE: 37 C.F.R. section 1.98(a)(2) requires that any information disclosure statement filed under section 1.97 shall include: "A legible copy of: (1) Each U.S. and foreign patent; (ii) Each publication or that portion which caused it to be listed; and (iii) All other information or that portion which caused it to be listed, except that no copy of a U.S. patent application need be included . . ."

NOTE: The wording in section 1.98(a)(2)(iii) makes it clear that the requirement to submit a copy of each item of information listed in an information disclosure statement does not apply to the citation of a U.S. patent application. Notice of January 9, 1992, 1135 O.G. 13-25, at 14.

Legible copies of all items listed in Forms PTO/SB/08A and 08B (substitute for Form PTO-1449) accompany this information statement.

(complete the following, if applicable)

☒ Exception(s) to above:

☐ Items in prior application, from which an earlier filing date is claimed for this application, as identified in Section 4.

☐ Cumulative patents or publications identified in Section 5.

U.S. patent citations are not included pursuant to 37 CFR 1.98 9(a)(2)(i) and 37 CFR 1.491(b), in which the USPTO waived the requirement for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003.

Section 10. Identification of Person(s) Making This Information Disclosure Statement

The person making this certification is

(check each applicable item)

- (a) ☐ the inventor(s) who signs below

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

- (b) ☐ an individual associated with the filing and prosecution of this application (37 C.F.R. section 1.56(c))

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

- (c) ☒ the practitioner who signs below on the basis of the information:

(check each applicable item)

☐ supplied by the inventor(s).

☐ supplied by an individual associated with the filing and prosecution of this application. (37 C.F.R. section 1.56(c)).

☒ in the practitioner's file.

Reg. No.: 37,910

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01118/00191 293450.1


SIGNATURE OF PRACTITIONER

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